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Epoxy Resin, which is commonly termed as adhesive, is becoming an imperative part of todayâ€™s construction and manufacturing sector. The primary reason behind their increased use is its attribute that allows them to transform from liquid to strong under a varied temperature. However, unbeknownst to many of us, behind this transformation, there is a formation of by-products and addition of chemically active amalgams termed as curing agents. These curing agents are generally derivatives of amines with Phenalkamine.

The roots of Phenalkamine were traced in mid 1970â€™s when the Cardolite Corporation (a former division of 3M Company) introduced it.

An overview of Phenalkamine and its uses:

It comes from Cardanol.

The cashew nut shell liquid (CSNL) is the main source from where this multipurpose derivative of amines is synthesized.

In the beginning, it was brought into the limelight with a purpose to have an extended pot life with awesome flexibility and laudable water resistance.

This miraculous curing agent is a blend of aliphatic aminesâ€™ properties and Polyamides characteristics.

This system has outstanding curing property and that too on low temperature.

This curing agent has a good resistance with all sort of chemical and on top to that, the curing agent has low toxicity and high flexibility.

The most astonishing fact about it is that it is now replacing the polyamides and polyamines, the two most common and frequently used curing agents.

This curing agent comes with a water resistance property. The fact behind this water resistance is Phenalkaminesâ€™ linear side chain that provides high hydrophobicity to resins. This high hydrophobicity eventually lessens the effect of phenolic hydroxyl on water sensitivity. This is what makes it a best coating and adhesive alternate for sealant industry and for wet or poorly prepared surfaces.

This adhesion quality, which has proved its worth even on water, is the primary reason behind its use in marine applications, civil engineering and industrial maintenance projects.

Precautions:

Storage :

1. Must be stored in cool and dry condition: temperature must not exceed 25Â°C

2. Must be stores in a sealed container and not in open lid box, because this product can react with Co2 and moisture

3. Must be used within one year from the date packed

Handling

1. An eye contact, it can cause severe damage and inflammation

2. Harmful for skin, if ingested or absorbed

3. While handling it and while not in use, make sure that container is tightly closed

4. Do not miss to use safety glasses, gloves and protective clothes

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In case of any misfortune, victim is advised to have first aid treatment, from a first aid attendee within the working location until the big help arrives. If you want to know more about a Phenalkamine and its recommended mix ratios, please refer most helpful web portal http://www.royceintl.com/.

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